

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Bac 1450 Alexandria, Virginia 22313-1450

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/721,940	11/25/2003	Rex Coppom	STR0001	8310		
25235	7590 07/02/2004		EXAMINER			
HOGAN & HARTSON LLP ONE TABOR CENTER, SUITE 1500			CHIESA, RICHARD L			
1200 SEVENTEENTH ST			ART UNIT PAPER NUMI			
DENVER, C	O 80202		1724			
			DATE MAILED: 07/02/2004			

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	40	Applicant(s)	PPOM	Ex	· AL	
Office Action Summary	Examiner	, 0		Group Art	Unit		
	10/721,9 Examiner RICHARD	L. (	HIESA	172	4		
-The MAILING DATE of this communication appears	on the cover she	et ber	eath the co	nresponde	nce ad	dress —	
Period for Reply	-	•					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO OF THIS COMMUNICATION.	EXPIRE	5	_ MONTH(S	) FROM TH	IE MAII	LING DATE	
<ul> <li>Extensions of time may be available under the provisions of 37 CFR 1. from the mailing date of this communication.</li> <li>If the period for reply specified above is less than thirty (30) days, a reply 16 NO period for reply is specified above, such period shall, by default,</li> <li>Failure to reply within the set or extended period for reply will, by staturent adjustment. See 37 CFR 1.704(b).</li> </ul>	ly within the statuto expire SIX (6) MONT te, cause the applic	ry minin THS fron ation to	num of thirty (3 n the mailing d become ABAN	0) days will b ate of this cou NDONED (35 I	e considenmunica	ered timely. tion. 133).	
Status							
☐ Responsive to communication(s) filed on							
☐ This action is FINAL.							
☐ Since this application is in condition for allowance except f accordance with the practice under Ex parte Quayle, 1935.			ecution as t	o the meri	ts is clo	osed in	
Disposition of Claims			•				
$V_{\text{Claim(s)}} = 1-24$	is/are p	is/are pending in the application.					
Of the above claim(s)							
• •		is/are allowed.					
□ Claim(s)			is/are n	eiected.			
□ Claim(s)							
□ Claim(s)				ject to restr	iction o	r election	
Application Papers		•	require				
☐ The proposed drawing correction, filed on	is □ appro	ved [	disapprove	ed.			
☐ The drawing(s) filed on is/are objected	d to by the Exan	niner					
☐ The specification is objected to by the Examiner.							
☐ The oath or declaration is objected to by the Examiner.							
Priority under 35 U.S.C. § 119 (a)-(d)							
☐ Acknowledgement is made of a claim for foreign priority un	der 35 U.S.C. § 1	19 (a)-	(d).				
☐ All ☐ Some* ☐ None of the:	•	, ,	,				
☐ Certified copies of the priority documents have been rec	eived.						
☐ Certified copies of the pnority documents have been rec		tion No					
☐ Copies of the certified copies of the priority documents	have been receiv	ed					
in this national stage application from the International I	Bureau (PCT Rule	• 17.2(a	<b>)</b> ))				
*Certified copies not received:					· <b></b>	<del></del> .	
Attachment(s)							
Information Disclosure Statement(s), PTO-1449, Paper No(s		□ Inte	erview Sum	nary PT∩_	113		
Notice of Reference(s) Cited, PTO-892		Interview Summary, PTO-413					
				e of Informal Patent Application, PTO-152			
☐ Notice of Draftsperson's Patent Drawing Review, PTO-948		∐ Otl	ner		•		

Office Action Summary

U.S. Patent and Trademark Office PTO-326 (Rev. 11/00)

Part of Paper No.

#### **DETAILED ACTION**

## **Drawings**

(1.) The drawings filed on November 25, 2003 are acceptable to the examiner.

## Claim Rejections – 35 USC 102/103

(2.) The following is a quotation of the appropriate paragraphs of 35 USC 102 that form the basis for the rejections under this section made in this Office action:

A person shall not be entitled to a patent unless--

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (3.) The following is a quotation of 35 USC 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- (4.) This application currently names joint inventors. In considering patentability of the claims under 35 USC 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicants are advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 USC 103(c) and potential 35 USC 102(f) or (g) prior art under 35 USC 103(a).
- (5.) Claims 1-6, 9-12, 15, and 16 are rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over Pick ('372). Pick ('372) discloses a filter media assembly and a method of making the filter as claimed (35 USC 102b). Note Pick ('372)'s pleated fibrous pleated dielectric filter media 4, conductive charging screen electrodes 2, 3, and frame 1. It would appear that Pick ('372) may not explicitly refer to the screens 2 and 3 as "electrodes". However, Pick ('372) does describe that a voltage source supplies voltage to the charging screens (note col. 3, lines 20-47). It is therefore inherent based on this description that the screens 2 and 3 are electrodes or at least would have been readily obvious to one of ordinary skill in the art (35 USC 103a) that they are electrodes.
- (6.) Claims 7, 8, and 13 are rejected under 35 USC 103(a) as being unpatentable over Pick ('372) in view of Joannou et al. Pick ('372), as described above in paragraph 5, discloses a filter and filter making method substantially as claimed. Apparently, Pick

- ('372) may not disclose the use of a glue bead to stabilize the filter pleats and affix the conductive electrode. However, Joannou et al (note Figures 5, 5A, 6, 10, 11) teach the well-known use of a glue bead 13 stabilizing the filter pleats 19 and affixing a conductive electrode 7 in a filter assembly and method of production for the purpose of ensuring a strong durable filter unit (note col. 4, lines 17-23, and col. 5, lines 18-58). Consequently, it would have been obvious to one having ordinary skill in the art to employ a glue bead in the Pick ('372) filter and method of making the filter in order to facilitate the stabilization of the filter as taught by Joannou et al.
- (7.) Claim 14 is rejected under 35 USC 103(a) as being unpatentable over the prior art as applied to claim 13 in paragraph 6 above, and further in view of Stemmer. The prior art, as described above in paragraph 6, discloses a filter making method substantially as claimed with the apparent exception of a heated glue bead. However, Stemmer (note ref. num. 22, Fig. 4, and col. 2, lines 23-27) teaches that this is a well-known expedient in the pleated filter production art for the purpose of ensuring that the filter is properly held together. Therefore, it would have been obvious to one of ordinary skill in the art to employ a heated glue bead in the prior art filter making method described above in order to facilitate assembly as taught by Stemmer.
- (8.) Claims 17-23 are rejected under 35 USC 103(a) as being unpatentable over Pick ('372) in view of Coppom ('476). Pick ('372), as described above in paragraph 5, discloses an air filtration apparatus and method substantially as claimed with the apparent exception of a blower and a grounded electrode collecting accumulated charge. Coppom

('476) teaches the well-known use of a blower 26 and a grounded electrode 42, 44 (note Figures 1-7) collecting accumulated charge in an air filtration apparatus and method for the purpose of draining accumulated charge (note col. 6, line 50 to col. 7, line 61). It would have been obvious to one of ordinary skill in the art to employ a blower and a grounded electrode in the Pick ('372) air filtration apparatus and method in order to facilitate charge draining as taught by Coppom ('476).

(9.) Claim 24 is rejected under 35 USC 103(a) as being unpatentable over Pick ('372) in view of Chapman. Pick ('372), as described above in paragraph 5, discloses an electrostatically enhanced filter apparatus substantially as claimed with the possible exception of a downstream functional unit using purified air. Chapman (note col. 1, lines 5-62) teaches the well-known use of positioning an electrostatically enhanced air filter upstream of a functional unit using purified air for the purpose of ensuring proper air quality to the functional unit and for this same reason it would have been obvious to employ such an expedient in the Pick ('372) air filter system.

### **Conclusion**

- (10.) The prior art cited but not applied is considered pertinent to applicants' disclosure. These references have been cited as art of interest to show other filter assemblies and methods of manufacture.
- (11.) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard L. Chiesa whose telephone number is (571) 272-1154.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane S. Smith, can be reached at (571) 272-1166.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1700 receptionist whose telephone number is (571) 272-0987.

Facsimile correspondence must be transmitted through (703) 872-9306.

Richard L. Chiesa June 30, 2004

> RICHARD L. CHIESA PRIMARY EXAMINER ART UNIT 1724

Richard L. Chiesa

June 30, 2004